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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/509,329	03/29/2005	Masami Kanamaru	259822US0PCT	1796
22850	7590	10/22/2007		
OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314			EXAMINER CHOI, LING SIU	
			ART UNIT	PAPER NUMBER
			1796	
			NOTIFICATION DATE	DELIVERY MODE
			10/22/2007	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary

Application No.

10/509,329

Applicant(s)

KANAMARU ET AL.

Examiner

Ling-Siu Choi

Art Unit

1796

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) 3,4,10 and 13-18 is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1,2,5-9,11 and 12 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. ____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|-------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>See Continuation Sheet</u> . | 6) <input type="checkbox"/> Other: ____ |

Continuation of Attachment(s) 3). Information Disclosure Statement(s) (PTO/SB/08), Paper No(s)/Mail Date :1/26/07, 7/28/05,
7/26/05, 10/7/04.

DETAILED ACTION

1. This Office Action is in response to the Response to Election/Restriction filed 08/06/2007. Claims 1-2, 5-9, and 11-12 of Group I have been elected. Attention is drawn to independent claims 1 and 3, wherein the polypropylene homopolymer of claim 1 is characterized by the following properties: $m_{mm} = 20$ to 60 mol%; $[r_{rrr} / (1 - m_{rnm})] \leq 0.1$; $r_{mm} > 2.5$ mol%; $m_m \times r_r / (m_r)^2 \leq 2.0$; and the weight ratio (W25) of components eluted at 25°C or lower in a temperature programmed chromatography = 20 to 100 wt% while the propylene copolymer of claim 3 is characterized by the following properties: stereoregularity index = 55 - 90 mol%. Thus, the polypropylene homopolymer and propylene copolymer do not share the same properties other than the different primary structures. Accordingly, there are burden to search two different polymers. As such, the election/restriction is made as **Final**.

Claim Analysis

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2. Summary of claim 1:

A method for producing a modified propylene homopolymer, the method comprising:		
modifying a propylene homopolymer with a radical initiator and an organic acid		
wherein the propylene homopolymer satisfies the conditions of		
	a	mmmm = 20 to 60 mol%
	b	$[rrrr / (1-mrrmm)] \leq 0.1$
	c	rmm > 2.5 mol%
	d	$mm \times rr / (mr)^2 \leq 2.0$, and
	e	the weight ratio (W25) of components eluted at 25°C or lower in a temperature programmed chromatography is 20 to 100% by weight.

Claim Rejections - 35 USC § 102/103

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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5. Claims 1-2, 5-9, and 11-12 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Ames (US 4,159,287).

Ames discloses a method to modify an amorphous polypropylene, comprising a step of reacting the amorphous polypropylene with at least one unsaturated alkyl carboxylic acid component in the presence of a free radical initiator to provide the modified amorphous polypropylene (initiator: col. 2, lines 1-10; acid component: col. 2, lines 64-68; col. 3, lines 1-9; claims 1-2). It is noted that Ames is silent on the claimed properties and these properties characterize an atactic or amorphous polypropylene homopolymer. Since PTO does not have proper means to conduct experiments, the burden of proof is now shifted to applicants to show otherwise. *In re Best*, 562 F.2d 1252, 195 USPQ 430 (CCPA 1977). *In re Fitzgerald*, 205 USPQ 594 (CCPA 1980).

6. Claims 1-2, 5-9, and 11-12 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Kehe et al. (US 3,616,047).

Kehe et al. disclose a method to modify an atactic polypropylene, comprising a step of reacting maleic anhydride with a solution of the polypropylene in an organic solvent containing a free radical producing material, wherein the free radical producing material is dibenzoyl peroxide, dilauroyl peroxide, dicumyl peroxide, or t-butyl perbenzoate (col. 3, lines 27-57). It is noted that Kehe et al. are silent on the claimed properties and these properties characterize an atactic or amorphous polypropylene homopolymer. Since PTO does not have proper means to conduct experiments, the

burden of proof is now shifted to applicants to show otherwise. *In re Best*, 562 F.2d 1252, 195 USPQ 430 (CCPA 1977). *In re Fitzgerald*, 205 USPQ 594 (CCPA 1980).

7. Claims 1-2, 5-9, and 11-12 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Templeton et al. (US 6,310, 134 B1).

Templeton et al. disclose a method to modify polypropylene homopolymer, comprising grafting an **amorphous polypropylene homopolymer** with one or more unsaturated carboxylic acids selected from the group consisting of acids, esters and anhydrides in a solvent selected from the group consisting of ester solvents, ketone solvents, aliphatic solvents, aromatic solvents and mixture thereof (the unsaturated carboxylic acid: claim 2; claim 1). Templeton et al. further disclose that a radical initiator can be used in the modification process (col. 4, lines 32-33). It is noted that Templeton et al. are silent on the claimed properties and these properties characterize an atactic or amorphous polypropylene homopolymer. Since PTO does not have proper means to conduct experiments, the burden of proof is now shifted to applicants to show otherwise. *In re Best*, 562 F.2d 1252, 195 USPQ 430 (CCPA 1977). *In re Fitzgerald*, 205 USPQ 594 (CCPA 1980).

8. Claims 1-2, 5-9, and 11-12 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Hohner (US 5,998,547).

Hohner discloses a method to modify a partially crystalline polypropylene homopolymer wax, comprising reacting the polypropylene homopolymer wax with an α,β -unsaturated carboxylic acid or a derivative thereof in the presence of free-radical formers, wherein the polypropylene wax has been prepared by direct polymerization of propylene using catalysts of the Ziegler or metallocene catalyst (claim 1). It is noted that Hohner is silent on the claimed properties and these properties characterize an atactic or amorphous polypropylene homopolymer. Since PTO does not have proper means to conduct experiments, the burden of proof is now shifted to applicants to show otherwise. *In re Best*, 562 F.2d 1252, 195 USPQ 430 (CCPA 1977). *In re Fitzgerald*, 205 USPQ 594 (CCPA 1980).

Conclusion

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ling-Siu Choi whose telephone number is 571-272-1098.

If attempt to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu, can be reached on 571-272-1114.



LING-SUI CHOI
PRIMARY EXAMINER

October 15, 2007